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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,097	02/27/2004	Kenichi Takano	HT03-030	7683

7590 04/24/2007
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EXAMINER

WATKO, JULIE ANNE

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/789,097	Applicant(s) TAKANO ET AL.	
	Examiner Julie Anne Watko	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Applicant has overcome the indefiniteness rejections by amendment.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtomo et al (US PAP No. 20040105189 A1).

As recited in claims 1, 8, 15 and 22, Ohtomo et al show a magnetic write head comprising and ABS 15, a top pole (including 13 and 8) having a first top surface and a first thickness, and a bottom pole (5, for example), said poles being separated by a write gap 6, the bottom pole further comprising front 24 and rear sections resting on a flat layer (18 or 27, for example) having an outer edge, said front section 24 further comprising trapezoidal (see shape of protrusion 24 in Fig. 8; see also ¶ 0056) front and rear vertical walls, separated by a second thickness, and an upper flat area; centrally located on said upper flat area, a flux concentrator

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(front part of 22) that extends toward said top pole, thereby defining a lower bound for said write gap 6, and having an upper surface; a flux extender (rear part of 22) connected to said flux concentrator (front part of 22) on said rectangular prism upper surface, whose upper surface is coplanar with said flux concentrator upper surface, and that extends therefrom and is connected thereto, said flux concentrator (front part of 22) and said trapezoidal front wall (front part of 24) each having a surface that forms part of said ABS 15.

As recited in claims 1, 8 and 22, Ohtomo et al show said top pole including an end piece (including 8 together with part of 13) having a top surface that is coplanar with said first top surface and a thickness that exceeds said first thickness, said end piece being disposed to lie directly above said bottom pole and extending horizontally from the ABS.

As recited in claims 1 and 8, Ohtomo et al show a rectangular prism 5 (see Fig. 13) having vertical inner and outer walls with said inner wall symmetrically contacting said trapezoidal rear wall, said outer wall extending to said flat layer 17 outer edge.

As recited in claims 15 and 22, Ohtomo et al show a rectangular prism 19 having vertical inner and outer walls with said inner wall symmetrically contacting said trapezoidal rear wall, that a portion of said flat layer 18 is not covered (see Fig. 2, for example) by said rectangular prism 19.

As recited in claims 1, 8 and 22, Ohtomo et al show said end piece (including 8 and part of 13) having a surface that forms part of said ABS 15.

As recited in claim 15, Ohtomo et al show a top pole piece 13 having a surface that forms part of said ABS 15 (see Fig. 22).

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As recited in claim 22, Ohtomo et al inherently show that the flat layer has an outer edge that is separated from an inner edge by a first distance.

Ohtomo et al, however, remain silent as to the specific dimensional relationships set forth in claims 1-28.

Official notice is taken of the fact that it is notoriously old and well known in the magnetic head art to routinely modify a magnetic head structure in the course of routine optimization/ experimentation and thereby obtain various optimized relationships including those set forth in claims 1-28.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the magnetic head of Ohtomo et al satisfy the relationships set forth in claims 1-28. The rationale is as follows: one of ordinary skill in the art would have been motivated to have had the magnetic head of Ohtomo et al satisfy the relationships set forth in claims 1-28 since it is notoriously old and well known in the magnetic head art to routinely modify a magnetic head structure in the course of routine optimization /experimentation and thereby obtain various optimized relationships including those set forth in claims 1-28.

Moreover, absent a showing of criticality (i.e., unobvious or unexpected results), the relationships set forth in claims 1-28 are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which when the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the Applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range. *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Response to Arguments

1. Applicant's arguments filed January 9, 2007, have been fully considered but they are not persuasive.

The Examiner has explained how the reference shows each and every limitation of the claimed invention, except for some claimed dimensions. The Examiner has indicated which elements in the prior art reference correspond to each and every limitation of the claims, except for said dimensions. Specifically, the Examiner has clearly explained that the prior art shows an end piece (including 8 and part of 13) and a flux extender (rear part of 22).

Although Applicant alleges that two features are not shown by the reference relied upon, Applicant has failed to show how the Examiner's explanation is either incorrect or deficient.

Furthermore, Applicant has failed to present evidence of unexpected results due to the claimed dimensions.

Because each and every limitation of the claims (except the dimensions) has been explained to correspond to an element in the prior art reference, and because Applicant has failed

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to present evidence of unexpected results due to the claimed dimensions, the obviousness rejection is maintained and is made final.

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Anne Watko whose telephone number is (571) 272-7597. The examiner can normally be reached on Monday-Friday, 10AM to 5PM and all day Saturday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Julie Anne Watko, J.D.
Primary Examiner
Art Unit 2627

April 19, 2007
JAW

A handwritten signature in black ink, appearing to read 'Julie Anne Watko', with a stylized, flowing script.